

Claims

1. (Amended) A method for adjusting suction of a cutting machine when cutting is performed with the cutting machine in which a sheet material is sucked and held on a table and a cutting blade is moved with respect to the table based on preset data ~~while a sheet material is sucked and held on the table,~~ comprising:

while an already-cut portion is covered with a sealing sheet so as to prevent leakage from increasing,

as cutting progresses, confirming an extent of leakage from an already-cut portion, and adjusting a suction state so as to compensate for reduction, due to the leakage, in a holding force on the sheet material on the table, and in consideration of a covered state with the sealing sheet.

2. The method of claim 1, wherein the suction state is adjusted based on results of a cutting simulation.

3. The method of claim 1 or 2, wherein the suction state is adjusted based on a prediction accompanying the progress of cutting.

4. (Amended) The method of any one of claims 1 to 3, wherein in the cutting machine, an already cut portion is covered with a sealing sheet so as to prevent leakage from increasing, and

~~the suction state is adjusted in consideration of a covered state with the sealing sheet.~~

5.—The method of any one of claims 1 to 34, wherein the suction state is adjusted in stages as cutting progresses.

56. (Amended) The method of claim 45, wherein the suction state is adjusted in stages as cutting progresses, taking a part that is cut off a sheet material as a reference.

67. (Amended) A suction adjustment apparatus, of a cutting machine, for adjusting a suction state, when a sheet material is cut by moving a cutting blade based on preset data in the cutting machine in which a sheet material is sucked and held on a table, comprising:

mask covering means for covering an already-cut portion with a sealing sheet so as to prevent leakage from increasing;  
suction amount adjustment means for confirming an extent of leakage from an already-cut portion, and adjusting a suction state so as to compensate for reduction, due to the leakage,  
in a holding force on the sheet material on the table, and in consideration of a covered state with the sealing sheet.

7. (Amended) The suction adjustment apparatus of claim 6, wherein the suction amount adjustment means comprises:

relation storing means for storing a relation obtained by associating in advance a cut distance of an already-cut portion and an adjustment amount of a suction state compensating for an extent of leakage from the already-cut portion;

data input means for inputting data for cutting a sheet material;

distance calculating means for calculating an amount of a cut distance increased as cutting progresses, based on data input by the data input means; and

adjustment amount calculating means for calculating an adjustment amount of a suction state, in accordance with an amount of a cut distance increased calculated by the distance calculating means, and based on a relation between the cut distance and the adjustment amount of the suction state, referring to the relation storing means.

8. (Amended) The suction adjustment apparatus of claim 7, wherein the cutting machine comprises mask covering means for covering an already cut portion with a sealing sheet so as to prevent leakage from increasing, and  
wherein the suction adjustment apparatus further comprises mask calculating means for calculating a cut distance of a portion that is covered with the sealing sheet of the mask covering means, of the already-cut portion,  
wherein the adjustment amount calculating means obtains

an amount of a cut distance increased for calculating an adjustment amount of the suction state, by correcting an amount of a cut distance increased calculated by the distance calculating means, with a cut distance of a portion that is covered with the sealing sheet calculated by the mask calculating means.

9. The suction adjustment apparatus of claim 7 or 8, further comprising:

adjustment amount display means for displaying an adjustment amount of a suction state calculated by the adjustment amount calculating means, in association with the progress of cutting of a sheet material;

modification input means for inputting a modification of an adjustment amount with respect to the adjustment amount displayed by the adjustment amount display means; and

adjustment amount modifying means for modifying an adjustment amount based on input of the modification input means.

10. (Amended) A program for letting a computer function as the suction adjustment apparatus of the cutting machine according to any one of claims 67 to 9.